

## REMARKS

Claims 18-24, 26-29, 42-44, 50 and 51 are pending in the application. Claims 18-21, 24, 26-28, 42, 43, 45 and 47 have been amended. Claims 25, 46, 48 and 49 have been canceled without prejudice or disclaimer. Claims 50 and 51 are newly added. Reconsideration of this application is respectfully requested.

Claims 18-29 and 42-47 have been rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. This rejection is moot as to claims 25, 45 and 46, which have been canceled.

Although Applicant respectfully disagrees with the rationale set forth in Paragraphs 5-8 of the Office Action, independent claims 18, 24, 42 and 47 have been amended along the lines suggested by the Examiner in order to advance the prosecution. Claims 18, 42 and 47 have been amended to recite a new configuring step that positively recites a computer in the body of the claim as suggested by the Examiner (Paragraph No. 5).

Claims 18 and 24 have been amended by changing "presenting" to "displaying" and to recite a new step (b) that positively recites that in response to a selection of at least one filter criteria, the universe of financial instruments is filtered based on a proposed filter condition to provide a proposed filter output. Step (c) (old step (b)) has been amended (in both claims 18 and 24) to recite displaying on the viewing screen a population chart of the financial instruments based upon the proposed filter output. Similar amendments have been made to claims 42 and 47. It is submitted that these changes, as well as other changes, to claims 18, 24, 42 and 47 adopt the gist of the Examiner's suggestions in Paragraph Nos. 6-8 of the Office Action.

For the reason set forth above, it is submitted that the rejection of claims 18-29, 42-45 and 47-49 are obviated by the amendment and should be withdrawn.

The Office Action rejects claims 18-29 and 42-47 under the second paragraph of 35 U.S.C. 112 as indefinite for various reasons set forth in Paragraph Nos. 11-16. This rejection is moot as to claims 25, 45 and 46, which have been canceled.

With respect to Paragraph No. 11, the indefiniteness is based on the scope of the claims being unclear. The Examiner indicates that if the rejection under 35 U.S.C. 101 is overcome, the rejection on this ground will be withdrawn. It is submitted that the amended independent claims 18, 24, 42 and 47 are in compliance with 35 U.S.C. 101 and that the rejection on the ground noted in Paragraph No. 11 should be withdrawn.

In Paragraph No. 12, the ground of indefiniteness is stated to be that it is unclear whether a memory media or a combination of a computer and a memory media is being claimed. Applicant's intent is to claim a memory media. In order to clarify this intent, claim 24 has been amended to recite that the memory media is capable of controlling a computer (lines 1 and 2) and comprises a search procedure that is capable of controlling the computer to perform steps (lines 7 and 8). It is submitted that these amendments clarify that claim 24 is indeed directed to a memory media. Therefore, it is submitted that the rejection of claim 24 under the ground noted in Paragraph No. 12 is obviated by the amendment and should be withdrawn.

In Paragraph No. 13, the Examiner states that it is unclear what corresponding structure in the application supports "means for controlling the computer". The means for controlling the computer language has been deleted from claim 24. Therefore, it is submitted that the rejection of claim 24 on the

ground noted in Paragraph No. 13 is obviated by the amendment and should be withdrawn.

In Paragraph No. 14, the Examiner states that “in close proximity thereto” is indefinite. Claim 43 has been amended to recite that the filter condition and associated actuator is presented in close proximity to the associated display element. Therefore, it is submitted that the rejection on the ground noted in Paragraph No. 14 is obviated by the amendment and should be withdrawn.

In Paragraph No. 15 the Examiner states that claim 45 may be superfluous based on the definition of “histogram”. Claim 45 has been amended along the lines of claim 19 with the bar language being deleted. Therefore, it is submitted that the ground of indefiniteness noted in Paragraph No. 15 is obviated by the amendment and should be withdrawn.

For the reasons set forth above, it is submitted that the rejection of claims 18-24, 26-29, 42-47 and 47 under the second paragraph of 35 U.S.C. 112 is obviated by the amendment and should be withdrawn.

The Office Action rejects claims 42 and 44-49 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,774,878 to Marshall, hereafter Marshall. This rejection is moot as to claims 46, 48 and 49, which have been canceled.

Claim 42 has been amended with the following changes.

- addition to preamble - with a computer that includes a processor, a memory, a viewing screen and a computer input device
- added - configuring step and step (a)
- added to step (b) – “in response to a user selecting at least one of said investment parameters, displaying on said viewing screen” and “wherein each of said display elements has a filter condition associated

therewith and an actuator for selecting said filter condition displayed at a location in said histogram”

- clarifying the histogram as “including an ordinate and an abscissa, one of which represents a number of said financial instruments and the other of which includes a plurality of display elements that represent different frequency of occurrence groupings of a selected one of said investment parameters”
- changed step (c) to read: “in response to a user selecting at least one of said filter conditions by actuating the associated actuator, filtering said universe of financial instruments to provide a filter output”
- changed step (d) to read: “displaying on said viewing screen a modified histogram based on said filter output”.

These changes are supported by Figs. 24-26 and accompanying description.

Claim 47 has been amended with the following changes:

- addition to preamble - with a computer that includes a processor, a memory, a viewing screen and a computer input device
- added - configuring step and step (b)
- changed step (a) to read: “displaying on said viewing screen a plurality of filter parameters for selection by a user”
- changed step (c) to read: “displaying concurrently with said filter parameters a preview of a result of said first filter pass based on said filtered output
- in step (d) – changed “filter” to “first filter” repeating steps (b), (c) and (d) for at least a second filter pass.
- changed step (e) to read: “repeating steps (b), (c) and (d) for at least a second filter pass”.

These changes are based on Fig. 21 and accompanying description.

This rejection is inapplicable to independent claims 42 and 47 as amended. Marshall does not teach a histogram as recited in claims 42 and 47

for the reasons set forth in the Remarks of the Amendment filed on January 12, 2004, which Remarks are hereby incorporated by reference. The Examiner contends that that a histogram is inherent in Marshall. However, the evidence of record does not support this contention. Paragraph No. 9 of the Ward Declaration emphatically states that the metaphor arrangement of Marshall is not a histogram. Moreover, the Examiner has not explained how Marshall's metaphor arrangement satisfies the definition set forth in the newly cited Data Analysis BriefBook. Accordingly, the weight of the evidence clearly supports Applicant's position that Marshall does not teach a histogram and the Examiner has not provided no authoritative documentation to refute the Declaration of Mr. Ward. Without such authoritative documentation, the Examiner must withdraw this rejection as being improperly based on the Examiner's own supposition rather than documented references.

Moreover, claim 47 as amended clarifies that the histogram includes "an ordinate and an abscissa, one of which represents a number of said financial instruments and the other of which includes a plurality of display elements that represent different frequency of occurrence groupings of a selected one of said investment parameters". Marshall does not teach such a histogram.

In addition, Marshall lacks frequency of occurrence groupings as recited in claim 42. Marshall's metaphors are not frequency of occurrence groupings, but rather each represent a different financial instrument. The metaphors are grouped by industry along one axis. The metaphor industry grouping is not proportional to frequency. Ward Declaration, Paragraph No. 9. Therefore, Marshall lacks frequency of occurrence groupings as recited in claim 42.

Also, Marshall lacks a display element that has an associated filter condition and an actuator for selecting the filter condition displayed at a location in the histogram as recited in claim 42. Marshall's metaphor's do not have any filter condition and associated actuator displayed in the virtual reality graphic.

Further, Marshall lacks step (c) of claim 42 that recites “in response to a user selecting at least one of said filter conditions by actuating the associated actuator, filtering said universe of financial instruments to provide a filter output”. Marshall does not teach doing a filter step in response to a user selection of a filter condition by actuating the associated actuator that is displayed in the virtual reality graphic.

Still further, Marshall lacks step (d) of claim 42 that recites “displaying on said viewing screen a modified histogram based on said filter output”.

With respect to claim 47, Marshall lacks step (c) that recites: “displaying concurrently with said filter parameters a preview of a result of said first filter pass based on said filtered output”. Marshall displays filter parameters and the virtual reality graphic on separate screens.

Marshall also lacks step (d) of claim 47 that recites: “performing said first filter pass in response to a user command given after said preview is presented to said user”. Marshall’s filter pass is performed before the virtual reality graphic is displayed.

Marshall also lacks step (e) of claim 47 that recites: “repeating steps (b), (c) and (d) for at least a second filter pass”. Marshall performs only a single filter pass.

For the reason set forth above, it is submitted that the rejection of claims 42 and 44 and 47 under 35 U.S.C. 102(b) as anticipated by Marshall is inapplicable and should be withdrawn.

The Office Action rejects claims 42 and 44-49 under 35 U.S.C 103(a) as unpatentable over Marshall. This rejection is moot as to claims 45, 46, 48 and 49 which have been canceled.

This rejection is inapplicable to independent claims 42 and 47 as amended. As noted in the discussion of the rejection of claims 42 and 47 under 35 U.S.C. 102(b), Marshall lacks several limitations recited in these claims. These limitations are clearly functionally involved in the claimed steps. It is noted that the Examiner's contention is based on the language "presenting", which has been deleted from claims 42 and 47. Moreover, the Examiner's conclusion that it would have been obvious to substitute the content of Marshall with any type of content is erroneous. There must be a teaching in Marshall or in other prior art to make any such substitution of a particular content taught in the prior art. There is no such teaching in Marshall and the Examiner has not cited any other art that supports such a teaching.

For the reasons set forth above, it is submitted that the rejection of claims 42, 44 and 47 under 35 U.S.C. 103(a) is erroneous and should be withdrawn.

The Office Action rejects claim 43 under 35 U.S.C 103(a) as unpatentable over Marshall in view of U.S Patent No. 5,918,217 to Maggioncalda et al., hereafter Maggioncalda.

This rejection is inapplicable to claim 43. As noted in the discussion of the rejection of independent claim 42 (from which claim 43 depends) under 35 U.S.C. 102(b), Marshall lacks several limitations recited in claim 42. Maggioncalda does not supply any of these deficiencies. Therefore, it is submitted that the rejection of claim 43 is inapplicable.

Further Maggioncalda does not teach a histogram, but rather discloses a simple bar chart. Ward Declaration, Paragraph No. 13. Thus, neither Marshall

nor Maggioncalda teach a histogram. Therefore, the combination of Marshall and Maggioncalda does not provide a histogram.

Further Maggioncalda does not disclose or teach an actuator for each of the filter conditions that is displayed in the bar chart in close proximity to any of the bars. Accordingly, any combination of Marshall and Maggioncalda does not make obvious that which is claimed in claim 43.

The Examiner concludes that based “on the teaching of Maggioncalda in combination with the other art of record”, but fails to identify which prior art of record and a particular teaching thereof that is relied on. Therefore, the conclusion of obviousness is based on a faulty evidentiary basis.

The Office Action provides no motivation for one skilled in the art to combine Marshall and Maggioncalda. The Office Action suggestion to use Marshall and Maggioncalda in combination is improperly based on the hindsight of Applicants’ disclosure. Such hindsight reconstruction of the art cannot be the basis of a rejection under 35 U.S.C. 103. The prior art itself must suggest that modification or provide the reason or motivation for making such modification. In re Laskowski, 871 F.2d 115, 117, 10 USPQ 2d 1397, 1398-1399 (CAFC, 1989). “The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made.” Sensonics Inc. v. Aerosonic Corp. 38 USPQ 2d 1551, 1554 (CAFC, 1996), citing Interconnect Planning Corp. v. Feil, 774 F. 2d 1132, 1138, 227 USPQ 543, 547 (CAFC, 1985).

For the reasons set forth above, it is submitted that the rejection of claim 43 under 35 U.S.C. 103(a) is erroneous and should be withdrawn.

The Office Action rejects claims 18-21 and 24-27 under 35 U.S.C 103(a) as unpatentable over Marshall in view of U.S Patent No. 4,221,003 to Chang et



al., hereafter Chang. This rejection is moot as to claim 25, which has been canceled.

Independent claims 18 and 24 have been amended in the following respects:

- “presenting” changed to “displaying”
- “investment parameters” changed to “filter criteria”
- “configuring” step added
- new steps (b) and (d) added
- step (c) - “filter condition” changed to “filter output”
- step (e) –  $i^{\text{th}}$  filter pass executed “based on said proposed filter output or said modified proposed filter output”
- changed “population chart to “histogram based upon said proposed filter output, wherein said histogram includes an ordinate and an abscissa, one of which represents a number of financial instruments and the other of which represents frequency of occurrence categories of said financial instruments”
- moved to new claims 50 and 51 – wherein the population chart for the  $i^{\text{th}}$  filter pass differs from the population chart for the  $i^{\text{th}} - 1$  filter pass.

These changes are supported by Fig. 21 and accompanying description.

The Examiner concedes that Marshall does not teach that the population chart for the  $i^{\text{th}}$  filter pass differs from the population chart for the  $i^{\text{th}} - 1$  filter pass. The Examiner cited Chang as providing this deficiency. Since this conceded language has been moved to new claims 50 and 51, the rejection is moot.

The following observations are presented as to the deficiencies of Marshall with respect to amended claims 18-21 and 24, 26 and 27.

Marshall lacks the step of performing a plurality of  $n$  filter passes as recited by independent claims 18 and 24. Marshall performs only a single filter pass by entry of filter choices to interface panel 20. When the user is satisfied with the choices, the user operates mix switch 24, which creates a configuration of the virtual reality world based on the user's choices and stores the configuration for later retrieval. There is no second chance opportunity for the user to perform a subsequent filter pass. In short, Marshall does not disclose or suggest a multi-pass filter of the financial instruments. Ward Declaration, Paragraph No. 11.

Marshall also lacks the step of presenting on the viewing screen a histogram based on the proposed filter condition of an  $i^{\text{th}}$  filter pass, where  $i$  is any integer from 1 to  $n$  as recited by independent claims 18 and 24. Marshall's filter pass is a proposed one only until the user activates mix switch 24. This locks the filter choices made by the user into an actual filter pass that is stored as a configuration of a virtual reality world. When the virtual reality world is later displayed, the actual filter pass is then performed on the financial instruments. Thus, Marshall does not disclose or suggest presenting on the viewing screen a histogram based on the proposed filter condition of an  $i^{\text{th}}$  filter pass as recited by independent claims 18 and 24.

Marshall also lacks the feature that the proposed filter condition includes at least one investment parameter selected by use of the computer input device and all filter conditions for previously performed ones of the filter passes. Marshall performs only a single filter pass. Ward Declaration, Paragraph No. 10. Therefore, Marshall's single filter pass cannot include all filter conditions for previously performed ones of the filter passes, as recited by independent claims 18 and 24.

Marshall further lacks the step of repeating the steps of presenting on the viewing screen a plurality of investment parameters, presenting on the viewing

screen a population chart and executing the proposed filter pass until the  $n^{\text{th}}$  filter pass is performed, as recited by independent claims 18 and 24. Claims 18 and 24 further define  $n$  as a plurality of filter passes. Marshall only performs a single filter pass and not a plurality of filter passes. Ward Declaration, Paragraph Nos. 10 and 11. Therefore, Marshall does not disclose or suggest repeating any filter steps of a multi-pass filter, i.e., repeating the recited steps for a plurality of  $n$  filter passes.

Marshall lacks step (a) and new step (b) which recite a “proposed” filter condition and a “proposed” filter output. Marshall does not disclose a “proposed” filter condition or filter output. Marshall’s filter condition and filter output are final and not proposed.

Marshall lacks step (d) that recites: “if said user makes an additional filter criteria selection to provide a modified proposed filter output, repeating steps (b) and (c) based on said modified proposed filter output, wherein said population chart is modified based on said modified proposed filter output”. Marshall teaches only a single filter pass and does not afford the user any opportunity to make an additional filter criteria selection. Marshall further does not teach repeating steps (b) and (c) based on a modified proposed filter output.

Claims 18 and 24 have been amended to recite: “histogram based upon said proposed filter output, wherein said histogram includes an ordinate and an abscissa, one of which represents a number of financial instruments and the other of which represents frequency of occurrence categories of said financial instruments”. Marshall does not disclose or suggest a histogram as recited in these claims. Ward Declaration, Paragraph No. 9.

For the reasons set forth above, it is submitted that the rejection of claims 18-21 and 24-27 under 35 U.S.C. 103(a) is inapplicable and should be withdrawn.

The Office Action rejects claims 22, 23, 28 and 29 under 35 U.S.C. 103(a) as unpatentable over the Marshall/Chang combination in further view of Maggioncalda. As noted above the Marshall/Chang combination is inapplicable to independent claims 18 and 24 from which claims 22, 23, 28 and 29 depend. For the purpose of the following discussion, it is assumed that the rejection is based on Marshall in view of Maggioncalda.

The Office Action concedes that Marshall does not disclose that the investment parameters and parameter limiters be presented in a first area of the viewing screen and the histogram be presented in a second area of the screen. Maggioncalda is cited for showing in Fig. 4 a user interface "where the filter conditions are on the same screen as the resultant bar graph in order to provide the ease of seeing both without flipping from screen to screen."

As noted above, Marshall does not disclose a histogram. Maggioncalda discloses a bar chart and not a histogram. Ward Declaration, Paragraph No. 13. Since neither Marshall nor Maggioncalda discloses a histogram, the combination thereof does not meet the language of claims 22, 23, 28 and 29 and, therefore, does not make these claims obvious.

Marshall lacks several additional limitations recited in independent claims 18 and 24, as well as dependent claims 19 and 25, from which claims 22, 23, 28 and 29 depend, as noted above in the discussion of the rejection of claims 18, 19, 24 and 25 under 35 U.S.C. 103(a). Maggioncalda, which was cited as showing a screen where filter conditions and a histogram were on the same display screen, does not supply the other limitations that Marshall lacks.

Moreover, one of ordinary skill in the art of virtual reality world of Marshall would not look to the financial advisory art of Maggioncalda because these arts are completely non-analogous. Ward Declaration, Paragraph No. 14.

The Office Action suggestion to use Marshall and Maggioncalda in combination is improperly based on the hindsight of Applicant's disclosure. Such hindsight reconstruction of the art cannot be the basis of a rejection under 35 U.S.C. 103. The prior art itself must suggest that modification or provide the reason or motivation for making such modification. In re Laskowski, 871 F.2d 115, 117, 10 USPQ 2d 1397, 1398-1399 (CAFC, 1989). "The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made." Sensonics Inc. v. Aerosonic Corp. 38 USPQ 2d 1551, 1554 (CAFC, 1996), citing Interconnect Planning Corp. v. Feil, 774 F. 2d 1132, 1138, 227 USPQ 543, 547 (CAFC, 1985).

For the reason set forth above, it is submitted that the rejection of claims 22, 23, 28 and 29 under 35 U.S.C. 103(a) is inapplicable and should be withdrawn.

Applicant thanks the Examiner for the remarks set forth in Paragraph Nos. 24-38 of the Office Action.

Applicant respectfully traverses the statements and conclusions set forth in paragraph Nos. 24 and 36. The issue is better characterized as: Is Marshall's metaphor arrangement a histogram based on the ordinary and customary meaning of histogram to one of ordinary skill in the art? Applicant's position is that Marshall's metaphor arrangement is not a histogram based on the ordinary and customary meaning of histogram to one of ordinary skill in the art, which is fully supported by the Ward Declaration. The Office Action has not provided any authoritative evidence to refute the Ward Declaration.

Applicant respectfully traverses the definition of histogram adopted in Paragraph Nos. 25 and 36 as contrary to the testimony of Matthew Ward and

bears no testimony or other evidence that it is accepted by one of ordinary skill in the art as the ordinary and customary meaning.

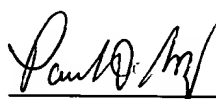
Applicant respectfully reserves the right to contest the positions of the Examiner set forth in Paragraph Nos. 26-38 should the Examiner rely on such positions with respect to the claims as amended.

Newly presented claims 50 and 51 recite a limitation, which was formerly recited in independent claims 18 and 24 from which these claims depend. It is submitted that claims 50 and 51 are allowable for the same reasons noted above for independent claims 18 and 24.

It is respectfully requested for the reasons set forth above that the rejections under 35 U.S.C. 101, 35 U.S.C. 112, 35 U.S.C. 102(b) and 35 U.S.C. 103(a) be withdrawn, that claims 18-24, 26-29, 42-44, 47, 50 and 51 be allowed and that this application be passed to issue.

Respectfully Submitted,

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